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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,394	08/18/2003	Yoshinori Tsubaki	03478/HG	3403
1933	7590	02/27/2006	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			SCHWARTZ, PAMELA R	
220 Fifth Avenue			ART UNIT	
16TH Floor			PAPER NUMBER	
NEW YORK, NY 10001-7708			1774	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/643,394	TSUBAKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Pamela R. Schwartz	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/27/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 7-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1 and 3-19 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's election of Group I, claims 1-6 in the reply filed on November 22, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Held et al. (5,537,137). The reference discloses an ink jet recording sheet comprising a support at a coating thereon (see col. 7, lines 1-8). The coating may contain a multivalent salt and a polyvinyl alcohol having photocrosslinkable groups that are cross-linked after imaging (see col. 9, lines 4-38). The polymerization degree of the polyvinyl alcohol is 400 to 3000. The coating may also contain inorganic filler with a filler to polymer ratio of 7 to 1 to 0.5 to 1 (see col. 10, lines 1-16). Since the photosensitive groups of the reference may include those recited by applicants' specification, the limitation of claim 6 is inherently met by the reference.
3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Held et al. (5,537,137) for reasons given above with respect to claim 1 and in further view of Tsuchiya et al. (JP411034481) or Mukouyoshi et al. (JP411034486) for reasons of record and for reasons given below.
4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

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patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 3-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application Nos. 10/770,619, 10/833,842, 10/855,525, 10/886,433, 10/823,340, and 10/868,481. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of these copending applications recites in its claims an ink jet recording sheet having a layer comprising a hydrophilic binder and an inorganic pigment. The binder is recited as cross-linked with ionizing radiation. Relying on the specifications to flesh out the embodiments recited by the claims of the copending applications, the claims of the applications are directed to the same kinds of binders with the same or overlapping polymerization degree that have photosensitive groups capable of dimerization as set forth by applicants' claim 6. Determination of the ratio of components within conventional ranges would have been obvious to one of ordinary skill in the art. With respect to the inclusion of a multivalent metal compound, inclusion of these materials is well known in the art for its mordanting properties.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Applicant's arguments filed December 27, 2005 have been fully considered but they are not persuasive. Once the binder of Held et al. is cross-linked, the medium of the reference meets all of the claim limitations about which applicants argue. The ratio

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of pigment to cross-linked binder is in the instantly recited range (col. 10, lines 10-21 of the reference). Applicants do not claim the polymerization degree of their polymer after cross-linking and prior to polymerization, the range of the reference, i.e. 400 to 3000, falls within the claimed range. Claim 1 says that the cross-linked polymer "is formed by irradiating ionizing radiation to a hydrophilic polymer compound which has a polymerization degree of not less than 300" (emphasis added) so this polymerization degree is of the compound prior to cross-linking. The ratio of filler to polymer compound is taught by the reference because the ranges of ratio of filler to polymer overlap with the range in the instant claims. Applicants' position appears to be that this ratio of filler to polymer is irrelevant because it is prior to cross-linking. The examiner disagrees because the weight ratio of these components will not be significantly altered by cross-linking of the polymer and there is nothing in the instant claims that prevents them from reading on an imaged and cross-linked medium. Finally, one of ordinary skill in this art would expect significant differences when comparing a cross-linked polymer with one that has not been cross-linked. Consequently, applicants' results are not unexpected.

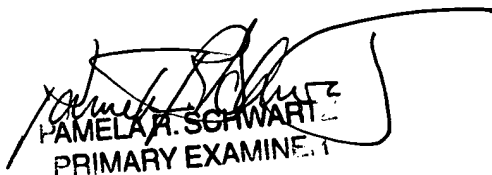
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz  
February 18, 2006

  
PAMELA R. SCHWARTZ  
PRIMARY EXAMINER